

IN THE CLAIMS:

Please cancel claims ~~3~~ and ~~18~~

Please amend claims 1, 4-9, 15, and 17 to read as follows:

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1. A heatsink comprising:

a) a column having a heat receiving face, wherein a cross section of said column has one shape selected from trapezoid, triangle, and a shape whose sectional width decreases as it extends away from said heat receiving face; and

b) a plurality of pillar-type protrusions provided on at least one face other than the heat receiving face of said column in such a manner that they are parallel to or at a predetermined angle against the heat receiving face, wherein at least one continuous row of said pillar-type protrusions extend from said column at the same angle relative to said column, each of said pillar-type protrusions in said at least one continuous row extending from said column at the same vertical height of said column.

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4. The heatsink of claim 1, wherein at least one of said pillar-type protrusions has protrusions and/or recesses on its surface.

5. The heatsink of claim 1, wherein the heat receiving face protrudes further outwards than said pillar-type protrusions.

~~6~~
6. A heatsink comprising:

a) a column having a heat receiving face; and

b) a plurality of pillar-type protrusions provided on at least one face other than the heat receiving face of said column in such a manner that they are parallel to or at a predetermined angle against the heat receiving face, wherein the vertical distance to the heat receiving face from

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the end of each of said pillar-type protrusions on the column side is shorter than that from the other end.

7. The heatsink of claim 6, wherein the height of each of said pillar-type protrusions does not go beyond the height of said column.

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8. The heatsink of claim 6, wherein at least one of said pillar-type protrusions has protrusions and/or recesses on its surface.

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9. ~~The heatsink of claim 6, wherein the heat receiving face protrudes further outwards than said pillar-type protrusions.~~

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15. A cooling apparatus comprising:
a heatsink comprising:

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a) a column having a heat receiving face, wherein a cross section of said column has one shape selected from trapezoid, triangle, and a shape whose sectional width decreases as it extends away from said heat receiving face; and

b) a plurality of pillar-type protrusions provided on at least one face other than the heat receiving face of said column in such a manner that they are parallel to or at a predetermined angle against the heat receiving face, wherein at least one continuous row of said pillar-type protrusions extend from said column at the same angle relative to said column, each of said pillar-type protrusions in said at least one continuous row extending from said column at the same vertical height of said column; and

a cooling means mounted on said heatsink.

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17. ~~The cooling apparatus of claim 15, wherein the heat receiving face protrudes further outwards than said pillar-type protrusions.~~

SEE APPENDIX FOR CHANGES MADE TO CLAIMS

Please add the following new claims:

--22. The heatsink of claim 6, wherein a cross section of said column has one shape selected from trapezoid, triangle, and a shape whose sectional width decreases as it extends away from said heat receiving face.

23. The cooling apparatus of claim 15, wherein at least one of said pillar-type protrusions have protrusions and/or recesses on its surface.

24. A heatsink comprising:

a) a column having a heat receiving face, wherein a cross section of said column has one shape selected from trapezoid, triangle, and a shape whose sectional width decreases as it extends away from said heat receiving face; and

b) a plurality of protrusions provided on at least one face other than the heat receiving face of said column, said protrusions being separated from each other by a plurality of first gaps and a plurality of second gaps, said first gaps being disposed parallel to said heat receiving face and said second gaps being disposed transversely to said heat receiving face, wherein said second gaps are configured to form paths for up-down air flow. --

REMARKS

I. Introduction

In response to the pending Office Action, Applicants have amended claims 5, 9, 17 so as to address the rejection under U.S.C. §112, second paragraph. Claims 22-24 have been newly added and are submitted to be allowable over the cited prior art.